



## Material Data Sheet

# PLMPUR | P1101 (TPU)

### General Information

PLMPUR is a thermoplastic polyurethane elastomer based on Polycaprolactone polyol. This material features excellent tensile properties and tear strength, low compression deformation and outstanding wear resistance.

PLMPUR is primarily used in seal applications that requiring high mechanical performance and wear resistance as well as it has very good resistance to hydraulic fluids based on mineral oil. Additionally this material has good ozone and weather resistance.

### Physical properties

Colour:			Green
Hardness:	DIN ISO 7619 (3 sec)	Shore A	95 +/-2
Hardness:	DIN ISO 7619 (3 sec)	Shore D	48 +/-2
Density:	DIN EN ISO 1183-1	g/cm <sup>3</sup>	1.18+/-0.02
100% Modulus:	DIN53504	N/mm <sup>2</sup>	≥12
Tensile strength:	DIN53504	N/mm <sup>2</sup>	≥48
Elongation at break:	DIN53504	%	≥450
Tear strength:	DIN ISO 34-1	N/mm	≥110
Compression set: 24h/70°C*	DIN ISO 815	%	≤27
Compression set: 24h/100°C**	DIN ISO 815	%	≤33
Abrasion:	DIN ISO4649	mm <sup>3</sup>	≤17
Min.service temperature:	ISO 11357-2	°C	-30
Max.service temperature:	ISO 11357-2	°C	110

\* 24 h 70°C 20% deflection/\*\* 24 h 100°C 20% deflection

### Remark

All test methods and values mentioned above are corresponding to ISO and/or DIN standards. The properties have been determined on standardized test specimen and can not be directly related to any component or finished item. All tests are made under laboratory conditions. The mentioned values are nominal values and must be fulfilled – considering related tolerances – for each material batch.

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